

BUILDING DIGITAL BRIDGES

Amit M. Schejter

Ben-Gurion University of the Negev and Penn State

Brandie Martin

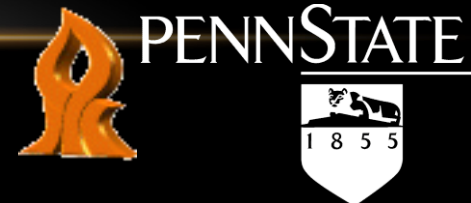
Penn State

The American Recovery and Reinvestment Act of 2009

BACKGROUND

THE PURPOSES OF THIS ACT INCLUDE THE FOLLOWING:

- (1) To preserve and create jobs and promote economic recovery.
- (2) To assist those most impacted by the recession.
- (3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health.
- (4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.
- (5) To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.



TITLE VI—BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM

- The purposes of the program are to—
 - (1) provide access to broadband service to consumers residing in unserved areas of the United States;
 - (2) provide improved access to broadband service to consumers residing in underserved areas of the United States;
 - (3) provide broadband education, awareness, training, access, equipment, and support to—
 - (A) .. community support organizations and entities to facilitate greater use of broadband service by or through these organizations;
 - (B) organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations; and
 - (C) job-creating strategic facilities;
 - (5) stimulate the demand for broadband, economic growth, and job creation.



PENNS^TATE



RESEARCH QUESTIONS

Stage 1:

- What are the information needs of members of a low-income urban community?
- How do they reach resolution of their information needs?
- What role do the PCCs serve in the target population's quest for information?

Stage 2:

- What (if any) other goals has the PCC program served?
- Have the BTOP PCCs served the goals of the program?

TRANSITION IN UNDERSTANDING THE DIGITAL DIVIDE

- “Digital Divide Studies”
 - transition from a supply-side analysis to a demand-side analysis
 - Transition from vertical (socio-economic) analysis to horizontal (within group) analysis
 - Transition from the access question to the capabilities question

THEORETICAL BACKGROUND (INFORMATION USE ENVIRONMENTS; TAYLOR, 1991)

problems



How do group members define their needs

people



How group members define themselves

setting



Needed •
information
Existing •
infrastructure
Public •
infrastructure
Social network •

solution



How group members define solution



PENNSSTATE



THE METHODOLOGICAL CHALLENGE

- The needy may not be available for phone survey work: they either don't have phones, or they have pre-paid phones that are unlisted
- Face-to-face interviews at home are expensive to conduct and will not easily produce statistically valid samples
- We are interviewing those that use the centers, so we don't really attend to those who do not have any access
- Qualitative methods have their reliability and validity shortcomings, but they provide insight otherwise unattainable.



PENNSTATE



METHODOLOGY

- Sampling for the interviews was convenience non-random sampling of visitors to PCCs. 71 interviews were conducted. They are still being transcribed and analyzed.
- Purposeful sampling was used to interview 20 informants with knowledge of the PCCs.
- Interviews combined the narrative interviewing technique with structured and semi-structured interviews.
- 23 anonymous logins of 23 random users of the PCCs were captured. A total number of five days of online use were analyzed, representing the actual online behavior of the 23 random PCC visitors.

FINDINGS

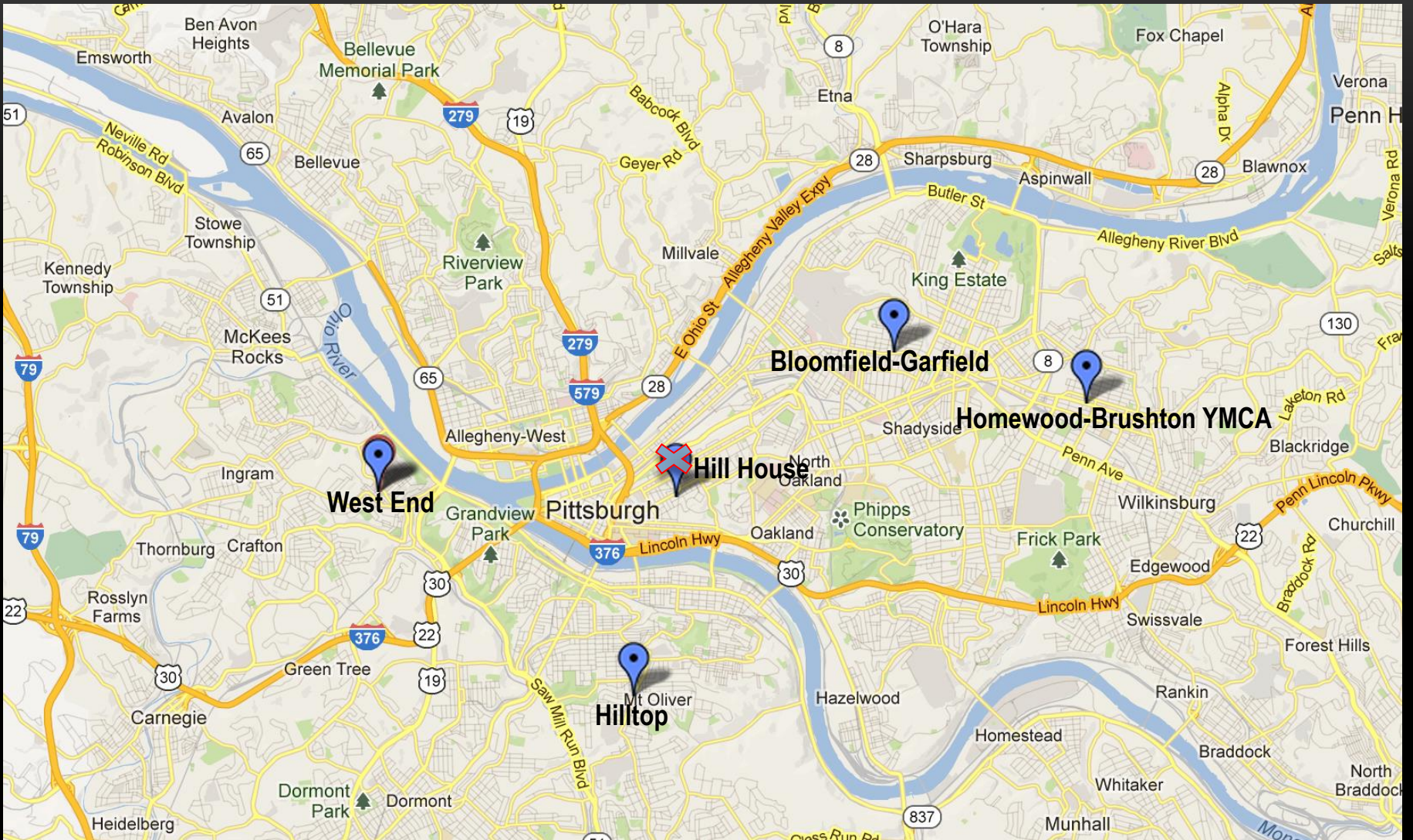
PITTSBURGH CONNECTS

- 4 functioning PCCs at a time
- PCCs located in low-income neighborhoods
- The original vision: “non-profit Starbucks”
- 25Mbit or better internet connection. Wireless access (1-2 points in each center). File server. A content filter, which is also a VPN manager. HP laptops core 3s with 4 GB of RAM, Microsoft Office 2010 on all laptops.



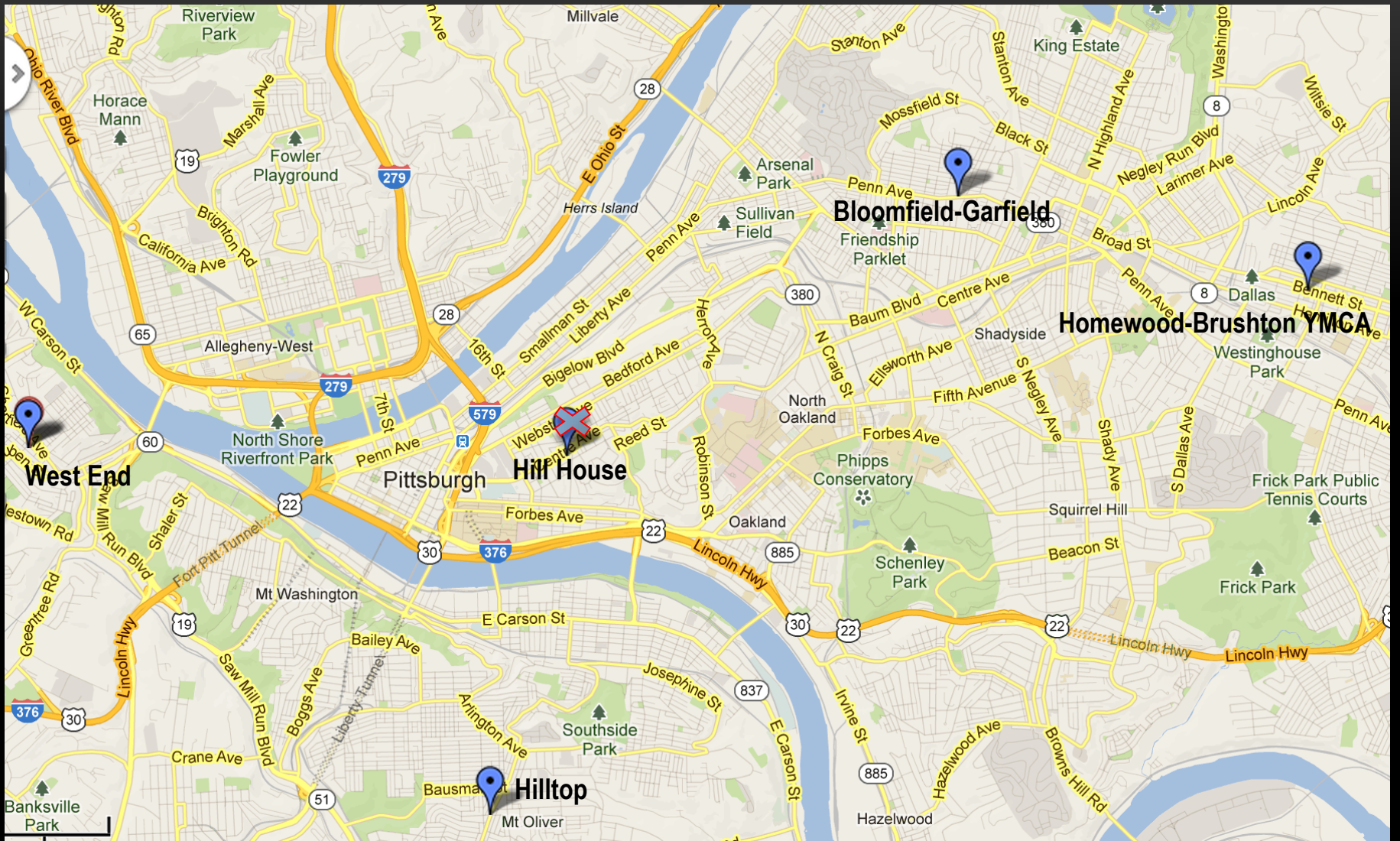
PENNSYLVANIA STATE UNIVERSITY





PENNSTATE





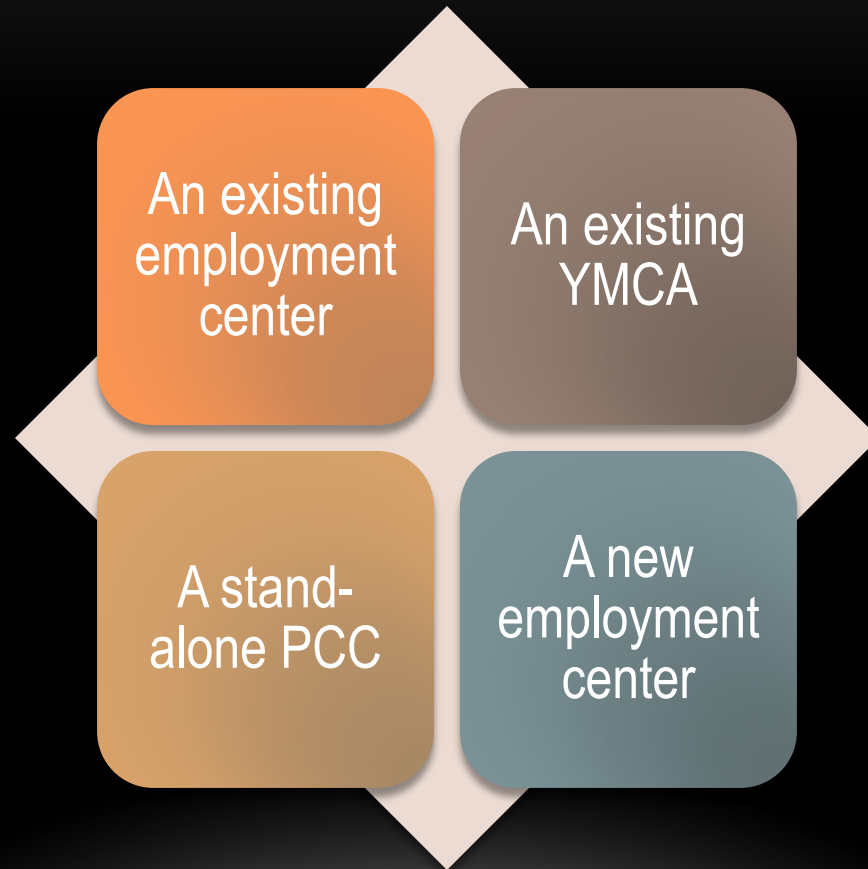
PENNSTATE



GENERAL PCC DATA

- Each PCC had an average of 5 Internet users per day
- Computers were used for a total average of 7.5 hours per day
- 6,961 individuals have registered to use the computers at the PCCs (by the summer of 2012).
- The average age of these users is 39.
- Out of the individuals who reported their level of education (n=976)
 - 31% did not graduate from high school.
 - 37% had received either a high school diploma or a general equivalency degree (GED)
 - 15% had obtained “some level of college.”
 - 17% percent were college graduates

THE INSTITUTIONAL BACKGROUND



PENNSSTATE



SERVICES

Education: GED, credit recovery

Employment

Basic skills training

Health

Tech center



PENNSSTATE



THE PEOPLE

- 23 online users:
 - 5 women; 17 men (1 did not state gender)
 - 18 African-American; 5 Caucasian
 - Average age of users was 36
 - Average annual income was below \$11,000.
- 21 interviewees whose interviews have been transcribed so far:
 - ages ranging from 19 to 70s
 - 19 African American, 2 Caucasian
 - 9 women; 12 men

PEOPLE (ONLINE)

- Each user spent an average of 1 hour and 45 minutes online.
- Users primarily accessed social media websites: Twenty-one users accessed Facebook and 14 users accessed YouTube—spending the majority of their time online at these sites.
- Nine users accessed pornographic websites
- Five users did online shopping at ebay.com and oodle.com.
- One individual researched health information
- One user researched unemployment benefits administered by the state.

Although two of the PCCs share their space with an employment agency and primarily serve low-income community members, only three users searched for employment opportunities.



PENNSSTATE



PEOPLE (WHY ARE THEY HERE?)

- Only a fraction learned of the PCCs through its recruitment effort
(“I think I walked by...No, I think I got a letter in the mail”)
- Most other respondents either learned about it from friends, neighbors and acquaintances, or “just happened to be near and see the signs.”
- Main reason repeatedly mentioned for returning to the centers was that the access was free and that the use was limitless.

PEOPLE (WHY THE STAFF THINKS THEY'RE THERE)

- there's enough technology, they will never be turned away
- it's a safe space where they can be on the computer as long as they want
- the computers work
- they have help
- there's a sense of community: you find something interesting on the net, you can share it
- many customers are homeless, the PCC is a safe place to hang out during the day
- people who have job needs use it to fulfill that need.



PENNSTATE



PROBLEMS

- “Personal”:
 - Survival
 - Job-seeking
 - health
 - “Authority seeking”
- “Institutional”
 - “I use the computer to see how much I have been paid...”
- “Privacy”

“The biggest difficulty is the information itself... just knowing what question to ask, just how to ask it.”



PENNSSTATE



SETTING (HOME)

- Overwhelmingly:
 - Television
 - Mobile phone (with Internet access)
 - No landline
 - No paper newspaper
 - Very little if any “radio”



PENNS^{TATE}



SETTING (PCC)

- Laptops
- Length of stay not necessarily while using computer, yet correlated with ability to use computer elsewhere
- The PCC is often complementary to access to PC in other places: home, library

RESOLUTION

- There is a general sense of reaching resolution among the interviewees. The interviewees did not report that in general their information needs weren't resolved.
- (a tool that needs to be refined)

ANALYSIS

INFORMATION/COMMUNICATION CIRCLES

- The consumption of information creates for the participants social groups—or “information/communication circles.”
- “Information acquisition group”: groups created on computer-assisted networks, whose goal is the acquisition of information
- “Informed person” (or “opinion leader”): some users acquire among their friends as a result of the information they can access using the computers
- “Communication group” (more apparent online): accessing the computer to engage in social networking

Information seeking is social, based on trust in others – the “two step flow” of contemporary media



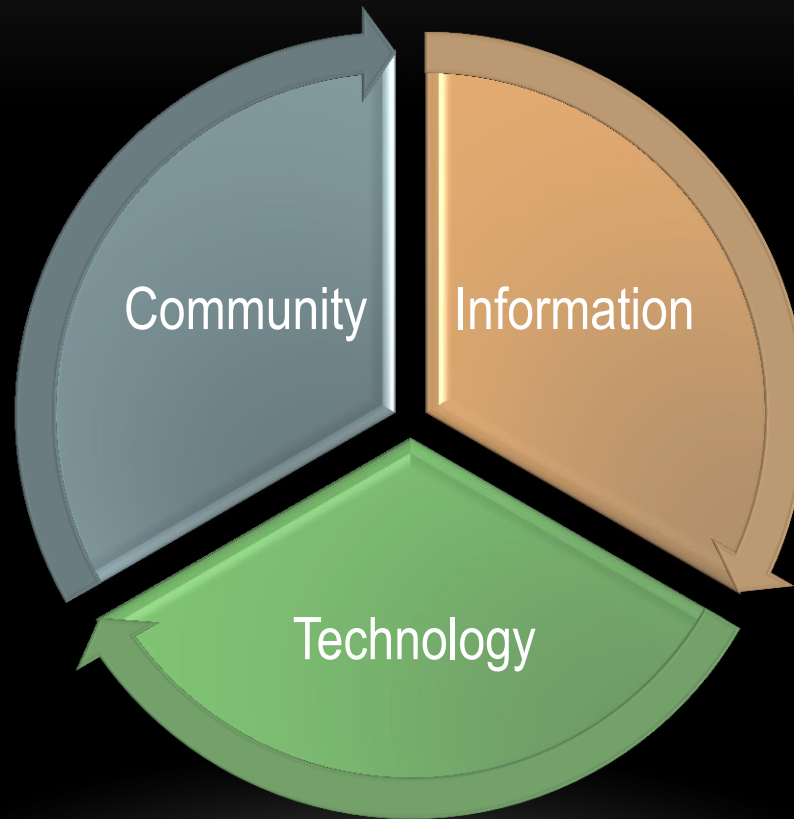
Sometimes its more about information;
Sometimes its more about communications; and
sometimes its about communicating to get
information



PENNS^{TATE}



PCC FUNCTIONS



PENNS^TATE



OBSERVATIONS

DIVERSITY

- The PCCs were accessible to a diverse population within the socio-economic group that constitutes these inner-city neighborhoods, diverse in age, diverse in their levels of access to technology, diverse in education but across the board low in their level of income.

“HAVE LESS”

- Contemporary inner-city dwellers rarely have a wireline phone, rarely read a newspaper (on paper) and rarely listen to the radio. They consume entertainment products primarily online and on television. Many that have broadband connectivity do not have enough of it. They may not be “have-nots,” but neither are they “haves.” This status of “have less” can be a result of time restrictions on media use, of the quality of the devices they use or of the speed of their connectivity.

THE “HAVE LESS” EXPERIENCE

- Technology does not replace human contact. Humans continue to serve as information resources for the “have-less” in this urban setting.
- Having the PCC was not enough, and users expressed their frustration at their inability at times to fully utilize these PCCs as a result of limited know-how.

INTENDED AND UNINTENDED CONSEQUENCES

Information access

- users spent a significant amount of time at these PCCs, and accessed a variety of online services ranging from social networks to job searching web sites to pornographic sites.

“Micro Goals”

- our findings suggest the PCC may also contribute to far more personal and modest “micro-goals” that may be as important on the one hand and to the advancement of unintended community goals on the other.

Community building

- the PCCs have emerged as community centers, places that provide access to technology, to information and to communication

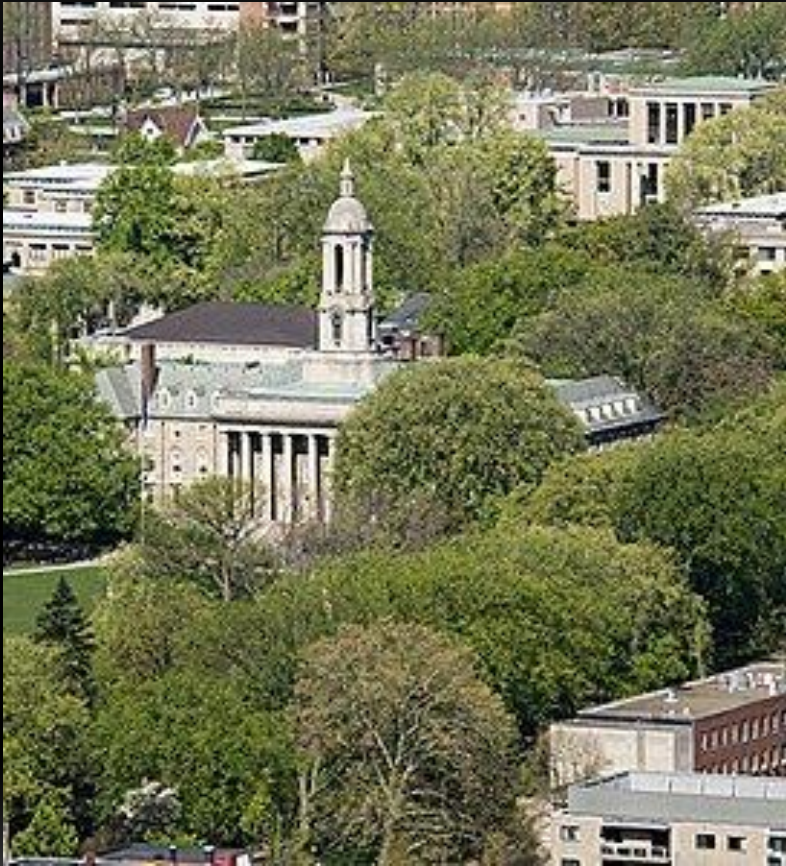
every policy has intended consequences, unintended consequences and externalities, all which need to be taken into account when evaluating it.



GRATIFIED

- Our interviewees do not feel that their quests do not get resolved, and the BTOP centers seem to play a role in the satisfaction of their information, technology and community needs.

THANK YOU



PENNSTATE

